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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,509	11/21/2003	Sandor H.G. Joppen	0142-0440P	8418
2292	7590	05/05/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			LIANG, LEONARD S	
PO BOX 747			ART UNIT	
FALLS CHURCH, VA 22040-0747			PAPER NUMBER	
			2853	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,509

Applicant(s)

JOPPEN, SANDOR H.G.

Examiner

Leonard S. Liang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 15 is/are rejected.
- 7) ☒ Claim(s) 12-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/21/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 1 and 15 are objected to because of the following informalities: claims 1 and 15 disclose, "second boundary means causing the ink pellets form in a single row..." This is not correct grammar. It will be construed that the claim should state "second boundary means causing the ink pellets to form in a single row..."

Claim 5 is objected to because of the following informalities: claim 5 discloses, "wherein the first boundary means cause the single layer to gradually becomes narrower..." This is not correct grammar. It will be construed that the claim should state "wherein the first boundary means causes the single layer to gradually become narrower..."

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

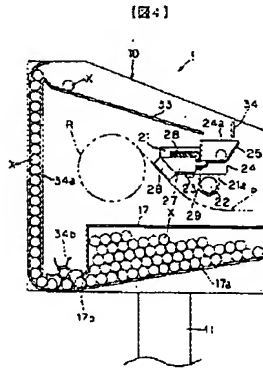
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8-9, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Sagou et al (JP Pat 11115213).

Sagou et al discloses:

- {claim 1} An inkjet printer provided with a dispensing device for dispensing ink pellets of substantially identical shape (figure 4); a duct for transporting the ink

pellets from an upstream location to a downstream ink pellet separating unit (figure 4); first boundary means causing the ink pellets to form as a single layer in the duct, the layer disposed at a small angle relative to the horizontal plane (figure 4, reference 17b); second boundary means causing the ink pellets to form in a single row in the direction of flow in the duct directly preceding the separating unit, the row having a length such that it extends over at least two ink pellets (figure 4, reference 34b)



- {claim 2} wherein the angle is less than or equal to 20° (figure 4, reference 17b; as seen in drawing)
- {claim 3} wherein the angle is less than or equal to 12° (figure 4, reference 17b; as seen in drawing)
- {claim 4} wherein the row extends over at least five ink pellets (figure 4, reference 34a; as seen in drawing)
- {claim 5} wherein the first boundary means causes the single layer to gradually become narrower in the direction of flow (figure 4, reference 176)
- {claim 6} wherein the layer has a wedge-shaped configuration (figure 4, reference 17b)

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- {claim 8} wherein a holder, suitable for holding a three-dimensional volume of ink pellets, is disposed above and communicates with the upstream portion of the transporting duct (figure 4, reference 17)
- {claim 9} wherein both the duct and the holder have a base and the base of the holder merges into the base of the duct, wherein an opening in the form of a gap is provided in a wall of the holder at the location of transition from the holder to the duct, the height of the gap being slightly larger than the diameter of the ink pellets (figure 4, reference 17b)
- {claim 15} A dispensing device for dispensing ink pellets of substantially identical shape (figure 4); a duct for transporting the ink pellets from an upstream location to a downstream ink pellet separating unit (figure 4); first boundary means causing the ink pellets to form as a single layer in the duct, the layer disposed at a small angle relative to the horizontal plane (figure 4, reference 17b); second boundary means causing the ink pellets to form in a single row in the direction of flow in the duct directly preceding the separating unit, the row having a length such that it extends over at least two ink pellets (figure 4, reference 34b)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satou et al (JP Pat 11115213A) in view of Mori (JP Pat 11179012A).

Satou et al discloses:

- {claims 7 and 10-11} an inkjet printer (as applied to claim 1)

Satou et al differs from the claimed invention in that it does not disclose:

- {claim 7} wherein the duct has a convex bulge directed towards the said layer at the place where the layer, in the transverse direction of flow, extends over two ink pellets
- {claim 10} wherein the duct has a base and two side walls, the base containing one or more steps
- {claim 11} wherein the steps form an angle other than 90° with the direction of flow in the duct

Mori discloses:

- {claim 7} wherein the duct has a convex bulge directed towards the said layer at the place where the layer, in the transverse direction of flow, extends over two ink pellets (figure 10, reference 21)
- {claim 10} wherein the duct has a base and two side walls, the base containing one or more steps (figure 10, reference 21)
- {claim 11} wherein the steps form an angle other than 90° with the direction of flow in the duct (figure 10, reference 21)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Mori into the invention of Satou et al. The

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motivation for the skilled artisan in doing so is to gain the benefit of separating and sorting multiple ball-shaped pellets.

Allowable Subject Matter

Claims 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 12 discloses, "wherein the duct has a base and two side walls, and the base of the duct is movable with respect to the side walls," which was not found, taught, or disclosed in the prior arts.

Claims 13-14 depend from objected claim 12.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ueda et al (JP Pat 08207306A) discloses a package for solid ink.

Kondo (JP Pat 06143603A) discloses an ink jet printer.

Hayashi (JP Pat 06143558A) discloses a hot-melt type ink jet printer.

Sagou et al (JP Pat 10217503A) discloses an ink-jet printer.

Matsuda (JP Pat 11115216A) discloses an ink jet printer.

Hollands et al (US PgPub 20020003563) discloses a melting device and an inkjet printer provided with a melting device of this kind.

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Dickensheets et al (US Pat 3713563) discloses a piece part supply mechanism.

Koelman et al (US Pat 6409327) discloses an ink jet device with a dispenser for ink pellets.

Zhao et al (US Pat 6440629) discloses an imaging apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S. Liang whose telephone number is (571) 272-2148. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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04/27/05


MANISH S. SHAH
PRIMARY EXAMINER

4/24/05